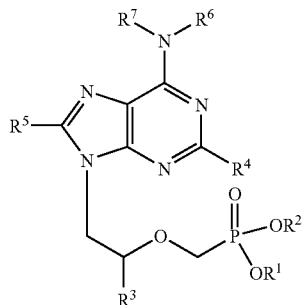


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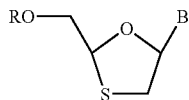
wherein R¹ and R² are independently selected from H, C₁-C₆ alkyl, C₁-C₆ substituted alkyl, C₆-C₂₀ aryl, C₆-C₂₀ substituted aryl, C₆-C₂₀ arylalkyl, C₆-C₂₀ substituted arylalkyl, acyloxymethyl esters —CH₂C(=O)R⁹ and acyloxymethyl carbonates —CH₂C(=O)OR⁹ where R⁹ is C₁-C₆ alkyl, C₁-C₆ substituted alkyl, C₆-C₂₀ aryl and C₆-C₂₀ substituted aryl;

R³ is selected from H, C₁-C₆ alkyl, C₁-C₆ substituted alkyl, or CH₂OR⁸ where R⁸ is C₁-C₆ alkyl, C₁-C₆ hydroxyalkyl and C₁-C₆ haloalkyl;

R⁴ and R⁵ are independently selected from H, NH₂, NHR and NR₂ where R is C₁-C₆ alkyl; and

R⁶ and R⁷ are independently selected from H and C₁-C₆ alkyl;

or a physiologically functional derivative thereof; in combination with an effective amount of a compound of the formula



wherein B is selected from adenine, guanine, cytosine, uracil, thymine, 7-deazaadenine, 7-deazaguanine, 7-deaza-8-azaguanine, 7-deaza-8-azaadenine, inosine, nebularine, nitropyrrole, nitroindole, 2-aminopurine, 2-amino-6-chloropurine, 2,6-diaminopurine, hypoxanthine, pseudouridine, 5-fluorocytosine, 5-chlorocytosine, 5-bromocytosine, 5-iodocytosine, pseudocytosine, pseudoisocytosine, 5-propynylcytosine, isocytosine, isoguanine, 7-deazaguanine, 2-thiopyrimidine, 6-thioguanine, 4-thiothymine, 4-thiouracil, O⁶-methylguanine, N⁶-methyladenine, O⁴-methylthymine, 5,6-dihydrothymine, 5,6-dihydrouracil, 4-methylindole, and a pyrazolo[3,4-D]pyrimidine; and

R is selected from H, C₁-C₁₈ alkyl, C₁-C₁₈ substituted alkyl, C₂-C₁₈ alkenyl, C₂-C₁₈ substituted alkenyl, C₁-C₁₈ alkynyl, C₂-C₁₈ substituted alkynyl, C₆-C₂₀ aryl, C₆-C₂₀ substituted aryl, C₂-C₂₀ heterocycle, C₂-C₂₀ substituted heterocycle, phosphonate, phosphophosphonate, diphosphophosphonate, phosphate, diphosphate, triphosphate, polyethyleneoxy or a physiologically functional derivative thereof; and

a pharmaceutically acceptable carrier.

B2. A composition of embodiment A1 wherein, in formula 1, R¹ and R² are independently selected from H, C₁-C₆ alkyl, C₁-C₆ substituted alkyl, C₆-C₂₀ aryl, C₆-C₂₀ substituted aryl, C₆-C₂₀ arylalkyl, C₆-C₂₀ substituted arylalkyl, acyloxymethyl esters —CH₂C(=O)R⁹ and acyloxymethyl carbonates —CH₂C(=O)OR⁹ where R⁹ is C₁-C₆ alkyl, C₁-C₆ substi-

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tuted alkyl, C₆-C₂₀ aryl and C₆-C₂₀ substituted aryl; and R³R⁴, R⁵, R⁶ and R⁷ are independently H or C₁-C₆ alkyl. C3. A composition of embodiment A1 wherein, in formula 2, B is cytosine or a 5-halocytosine.

D4. A composition of embodiment A1 wherein, in formula 1, R¹ and R² are independently selected from H, C₁-C₆ alkyl, C₁-C₆ substituted alkyl, C₆-C₂₀ aryl, C₆-C₂₀ substituted aryl, C₆-C₂₀ arylalkyl, C₆-C₂₀ substituted arylalkyl, acyloxymethyl esters —CH₂C(=O)R⁹ and acyloxymethyl carbonates CH₂C(=O)OR⁹ where R⁹ is C₁-C₆ alkyl, C₁-C₆ substituted alkyl, C₆-C₂₀ aryl and C₆-C₂₀ substituted aryl; and R³ R⁴, R⁵, R⁶ and R⁷ are independently H or C₁-C₆ alkyl; and, in formula 2, B is cytosine or a 5-halocytosine.

E5. A composition of embodiment D 4 wherein, in formula 1, R¹ and R² are independently selected from H, acyloxymethyl esters —CH₂C(=O)R⁹ and acyloxymethyl carbonates CH₂C(=O)OR⁹ where R⁹ is C₁-C₆ alkyl; and R³, R⁴, R⁵, R⁶ and R⁷ are independently H or C₁-C₆ alkyl; and, in formula 2, B is cytosine or a 5-halocytosine and R is H.

F6. A composition of embodiment E5 wherein, in formula 1, R¹ and R² are independently selected from H and —CH₂C(=O)OCH(CH₃)₂; R³ is —CH₃; and R⁴, R⁵, R⁶ and R⁷ are H; and, in formula 2, B is 5-fluorocytosine and R is H.

G7. A pharmaceutical composition comprising a pharmaceutically effective amount of [2-(6-amino-purin-9-yl)-1-methyl-ethoxymethyl]-phosphonic acid diisopropoxycarbonyloxymethyl ester fumarate (tenofovir disoproxil fumarate) or a physiologically functional derivative thereof and a pharmaceutically effective amount of (2R,5S)-4-amino-5-fluoro-1-(2-hydroxymethyl-1,3-oxathiolan-5-yl)-(1H)-pyrimidin-2-one (emtricitabine) or a physiologically functional derivative thereof; and a pharmaceutically acceptable carrier.

H8. A pharmaceutical formulation of embodiment A1 to G7 further comprising a third active ingredient selected from the group consisting of a protease inhibitor, a nucleoside or nucleotide reverse transcriptase inhibitor, a non-nucleoside reverse transcriptase inhibitor, and an integrase inhibitor.

I9. A pharmaceutical formulation of embodiments A1 to H8 in unit dosage form.

J10. A method for the treatment or prevention of the symptoms or effects of an HIV infection in an infected animal which comprises administering to said animal a pharmaceutical composition of embodiments claims A1 to I9.

We claim:

1. A chemically stable fixed-dose combination comprising 300 mg of tenofovir disoproxil fumarate and 200 mg of emtricitabine wherein the combination exhibits less than 10% degradation of the tenofovir disoproxil fumarate and emtricitabine after six months at 40° C./75% relative humidity when packaged and stored with silica gel desiccant at 40° C./70% relative humidity.

2. The chemically stable combination of claim 1 in the form of a pharmaceutical dosage form.

3. The chemically stable combination of claim 2 wherein the dosage form is oral.

4. The pharmaceutical dosage form of claim 2 wherein the tenofovir disoproxil fumarate is not substantially degraded.

5. The pharmaceutical dosage form of claim 4 where there is less than 10% degradation of tenofovir disoproxil fumarate over a 24-hour period.

6. The pharmaceutical dosage form of claim 4 where there is less than 1% degradation of tenofovir disoproxil fumarate over a 24-hour period.

7. The pharmaceutical dosage form of claim 4 where there is less than 0.1% degradation of tenofovir disoproxil fumarate over a 24-hour period.